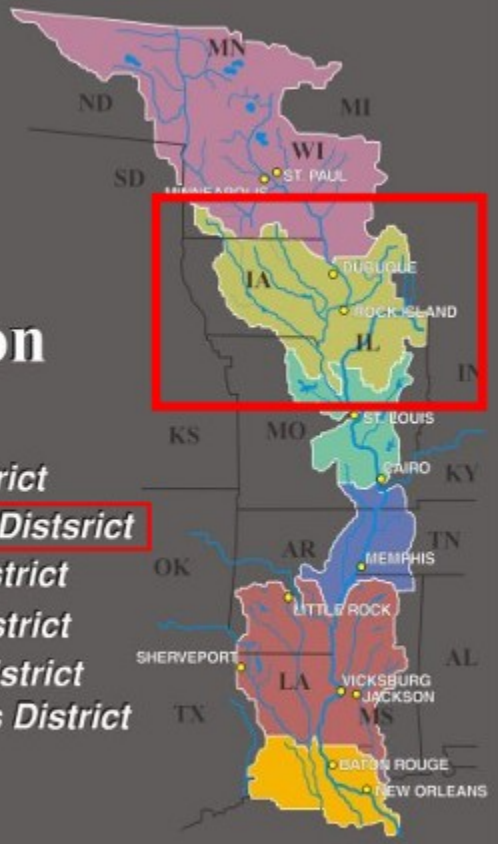
ROCK ISLAND DISTRICT Mississippi River Maintenance

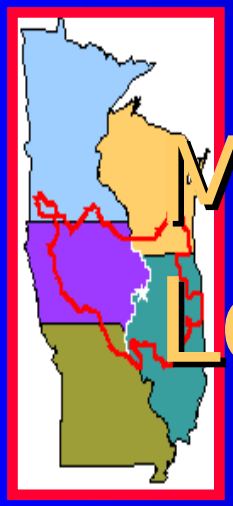
Spare Miter Gates

US Army Corps
Of Engineers
Mississippi Valley Division

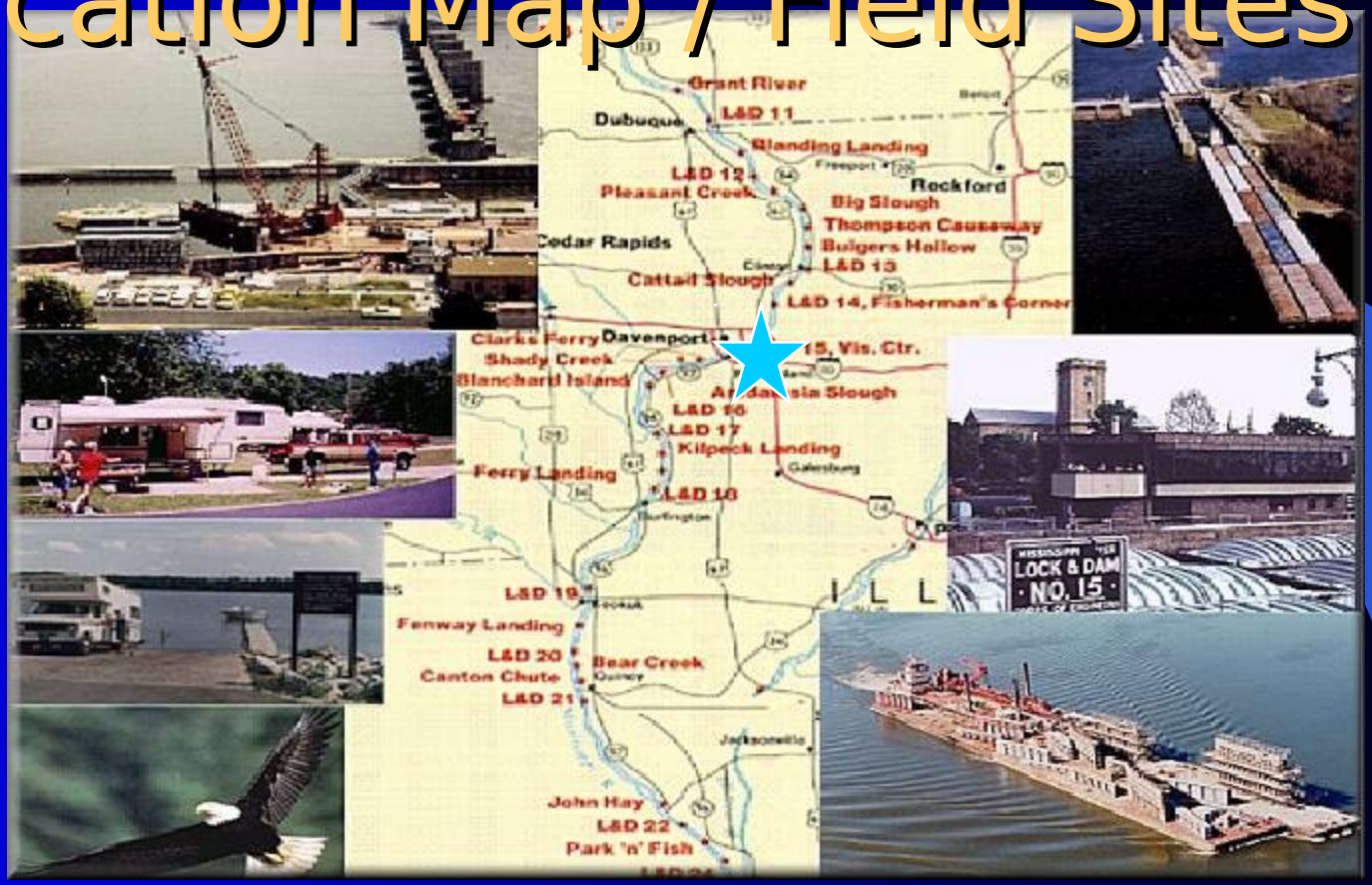
Mississippi Valley Division

- St. Paul District
- Rock Island Distsrict
- St. Louis District
- Memphis District
- Vicksburg District
- New Orleans District





Mississippi River Project Location Map / Field Sites



Mississippi River Project Office
Location: Near LeClaire Ia.
Lock and Dam No. 14 & Auxiliary

Spare Gate System

- The spare miter gates are constructed from a set of 8 modules of varying heights.
- The modules are stacked to match the height of the service gate they are replacing.
- Each set includes the modules to construct a gate for either or both sides and the barge to store them.
- The barge includes vacant pads to assemble the gate, store up to two service gates, rigging and bolting required to assemble the gate.

Spare Gate Info

- Three Spare Gate Barges with gates are currently in service with one under construction
- The two in service and the third under construction are very similar and fit the same locks.
- One barge with accompanying gate sections will only fit Locks 19,26, and 27.

Spare Gate Info

- The first gate barge was constructed in 1941 at Ingalls Shipyard. It is 274 feet long and 40 feet wide.
- The second barge is very similar and is the same length but is 50 feet wide.
- The third barge is under construction at Eastern Shipyard. It will be 40 feet wide and 300 feet long.
- The largest barge is unique and only accommodates horizontally framed gates at Locks 19,26,&27. It measures 61’3” wide by 322’-9” long.

Spare Gate Top Section With Section to be Removed

Attaching New Section to Top

Pick Up New Section

Reattach Bottom Section

St. Paul District

Main Gates Upper				Main Gates Lower			Aux Gates Upper		Aux Gates Lower	
Lock	Height	Units	Bank	Height	Units	Bank	Height	Units	Height	Units
2	27'-0"	AFEC	R	30'-0"	AGC	R	20'-0"	ADB	31'-9 5/8"	AHGC
3	25'-0"	AEC	R	30'-0"	AGC	R	27'-0"	AFEC		
4	20'-0"	AC	L	23'-0"	ADC	L	20'-0"	AC		
5	20'-0"	AC	R	23'-0"	ADC	R	23'-0"	ADC		
5A	27'-0"	AFEC	R	27'-0"	AFEC	R	27'-0"	AFEC		
6	23'-0"	ADC	L	25'-0"	AEC	L	25'-0"	AEC		
7	23'-0"	ADC	R	25'-0"	AEC	R	23'-0"	ADC		
8	27'-0"	AFEC	L	30'-0"	AGC	L	27'-0"	AFEC		
9	27'-0"	AFEC	L	33'-0"	ADGC	L	30'-0"	AGC		
	25'-									

Rock Island District

Main Gates Upper			Main Gates Lower			Aux Gates Upper		Aux Gates Lower	
Lock	Height	Units	Height	Units	Bank	Height	Units	Height	Units
11	25'-0"	AEC	30'-0"	AGC	R	30'-0"	AGC		
12	25'-0"	AEC	30'-0"	AGC	R	30'-0"	AGC		
13	25'-0"	AEC	30'-0"	AGC	L	30'-0"	AGC		
14	23'-0"	ADC	27'-0"	AFEC	R				
15	31'-9 5/8"	AHGC	31'-9 5/8"	AHGC	L	31'- 9 5/8"	AHGC	31'-9 5/8"	AHGC
16	23'-0"	ADC	27'-0"	AFEC	L	25'-0"	AEC		

Rock Island District

Lock	Main Gates Upper			Main Gates Lower			Aux Gates Upper		Aux Gates Lower	
	Height	Units	Bank	Height	Units	Bank	Height	Units	Height	Units
17	25'-0"	AEC	L	30'-0"	AGC	L	27'-0"	AFEC		
18	23'-0"	ADC	L	30'-0"	AGC	L	23'-0"	ADC		
19	25'-0"	Vert.L	R	53'-2"		R				
20	20'-0"	AC	R	27'-0"	AFEC	R	27'-0"	AFEC		
21	27'-0"	AFEC	L	33'-0"	ADGC	L	33'-0"	ADGC		
22	27'-0"	AFEC	R	33'-0"	ADGC	R	30'-0"	AGC		

Rock Island District
Illinois Locks

Lock	Main Gates Upper		Main Gates Lower		Aux Gates Upper		Aux Gates Lower	
	Height	Units	Height	Units	Height	Units	Height	Units
Peoria	17'-6"	AB	NA	NA	NA	NA	NA	NA
LaGrange	17'-6"	AB	NA	NA	NA	NA	NA	NA

St. Louis District

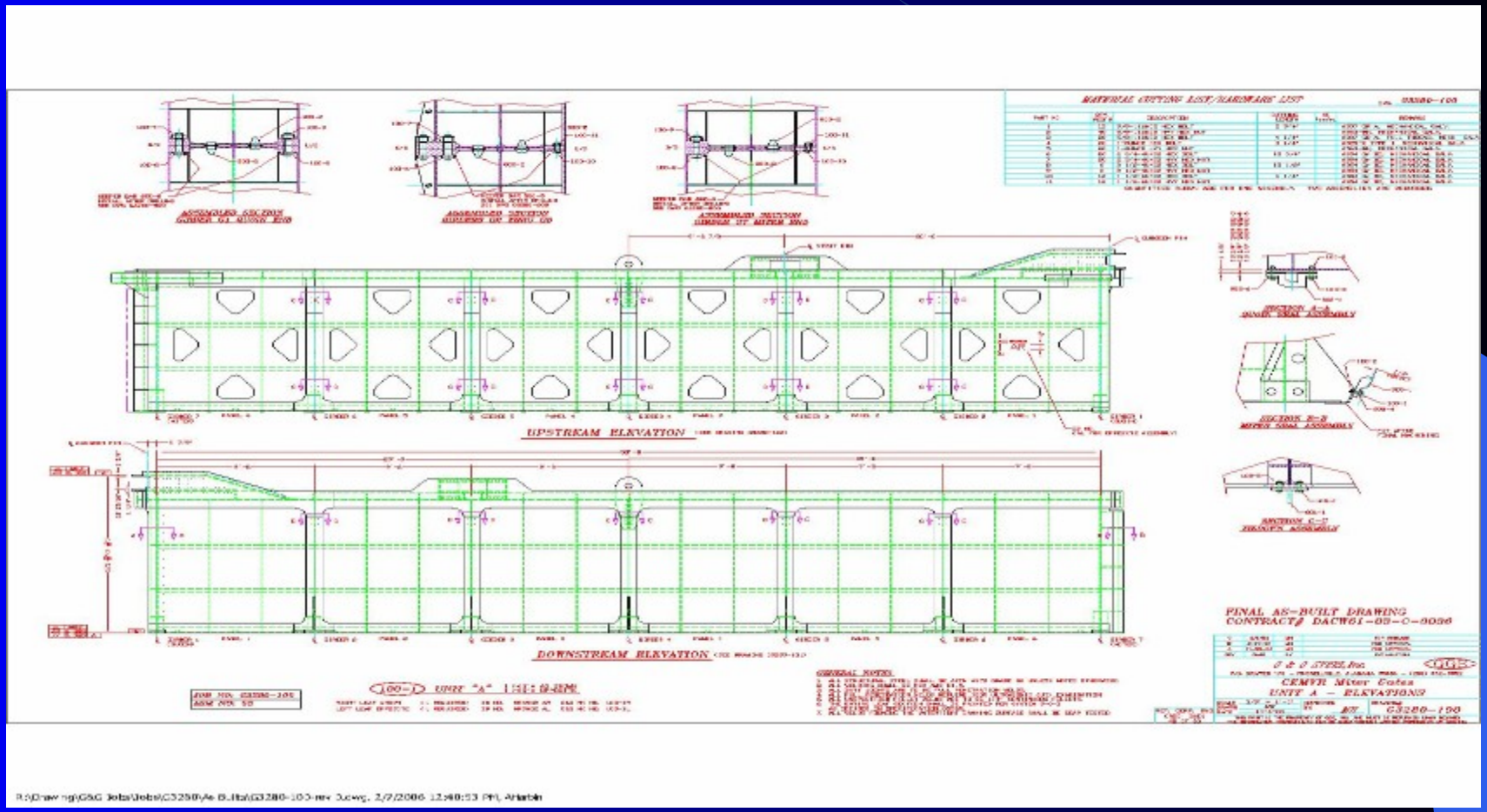
Main Gates Upper				Main Gates Lower			Aux Gates Upper		Aux Gates Lower	
Lock	Height	Units	Bank	Height	Units	Bank	Height	Units	Height	Units
24	25'-0"	AEC	R	33'-0"	AHGC	R	30'-0"	AGC	NA	NA
25	27'-0"	AFEC	R	35'-0"	AEGC	R	35'-0"	AEGC	NA	NA

Weight of Service Gates

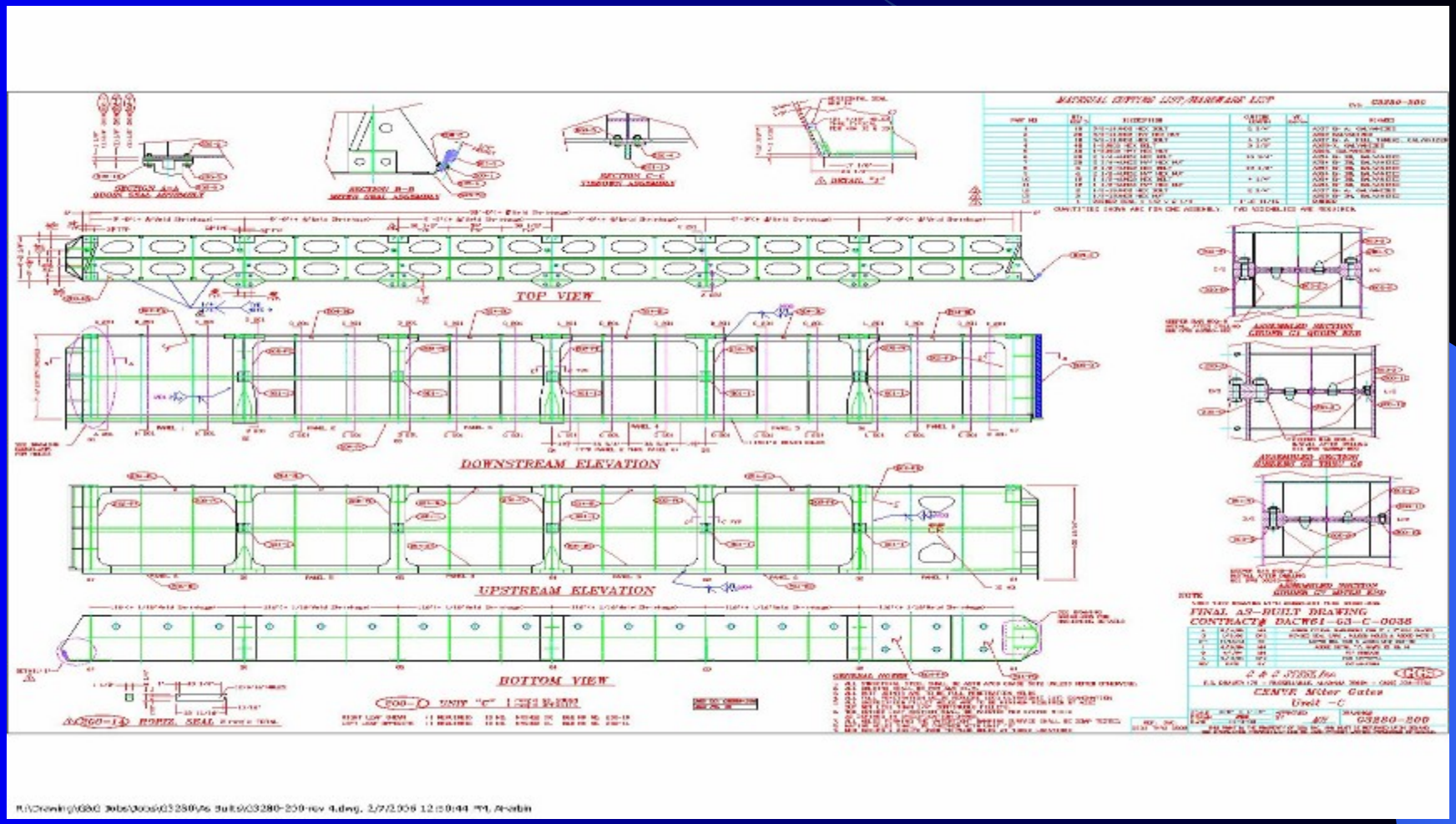
WEIGHT OF ONE GATE LEAF WITHOUT MUD AND ICE

HEIGHT	WEIGHT IN TONS
20	65
23	74
25	78
27	82
30	90
33	96

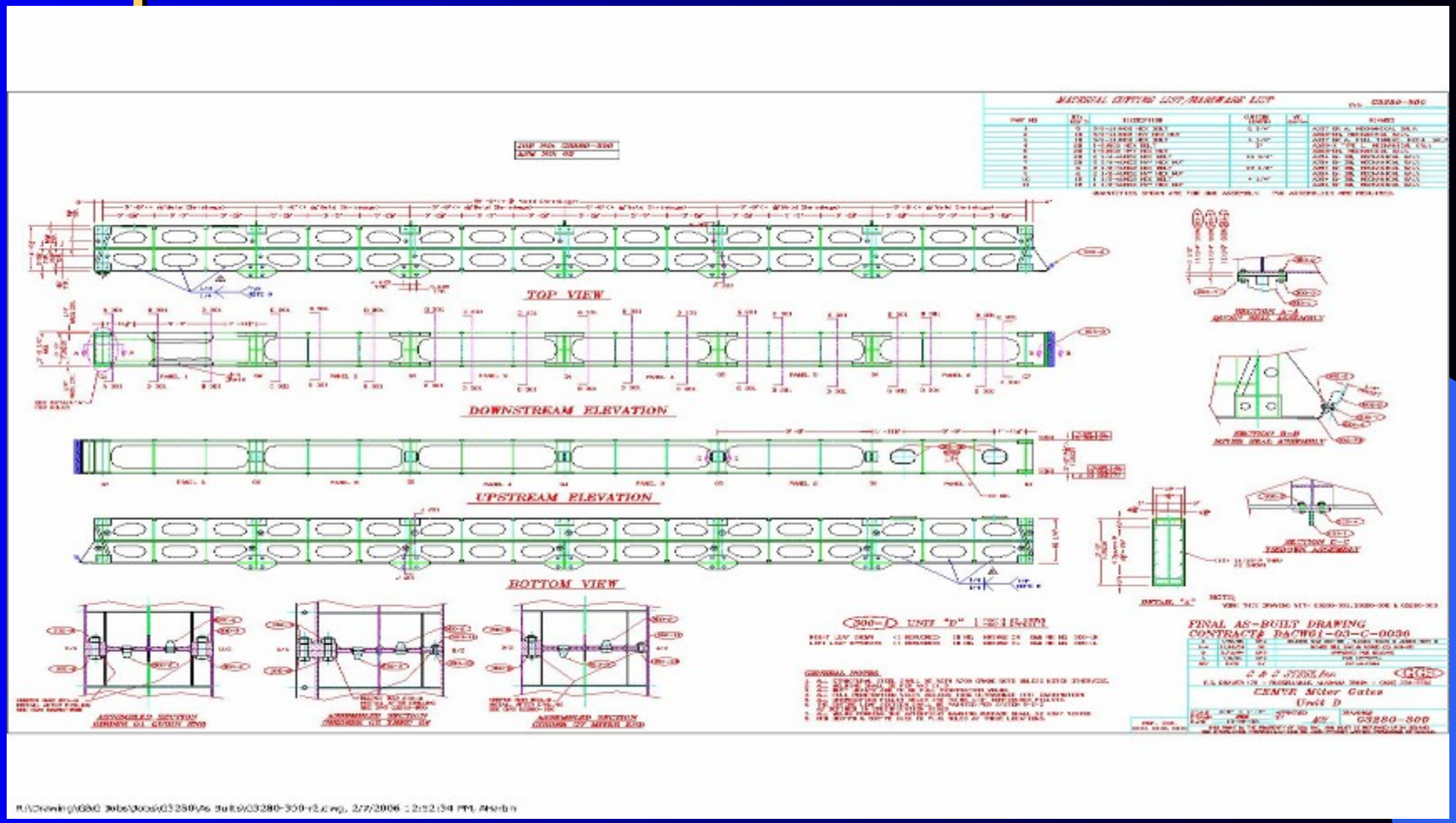
Spare Gate “A” Section



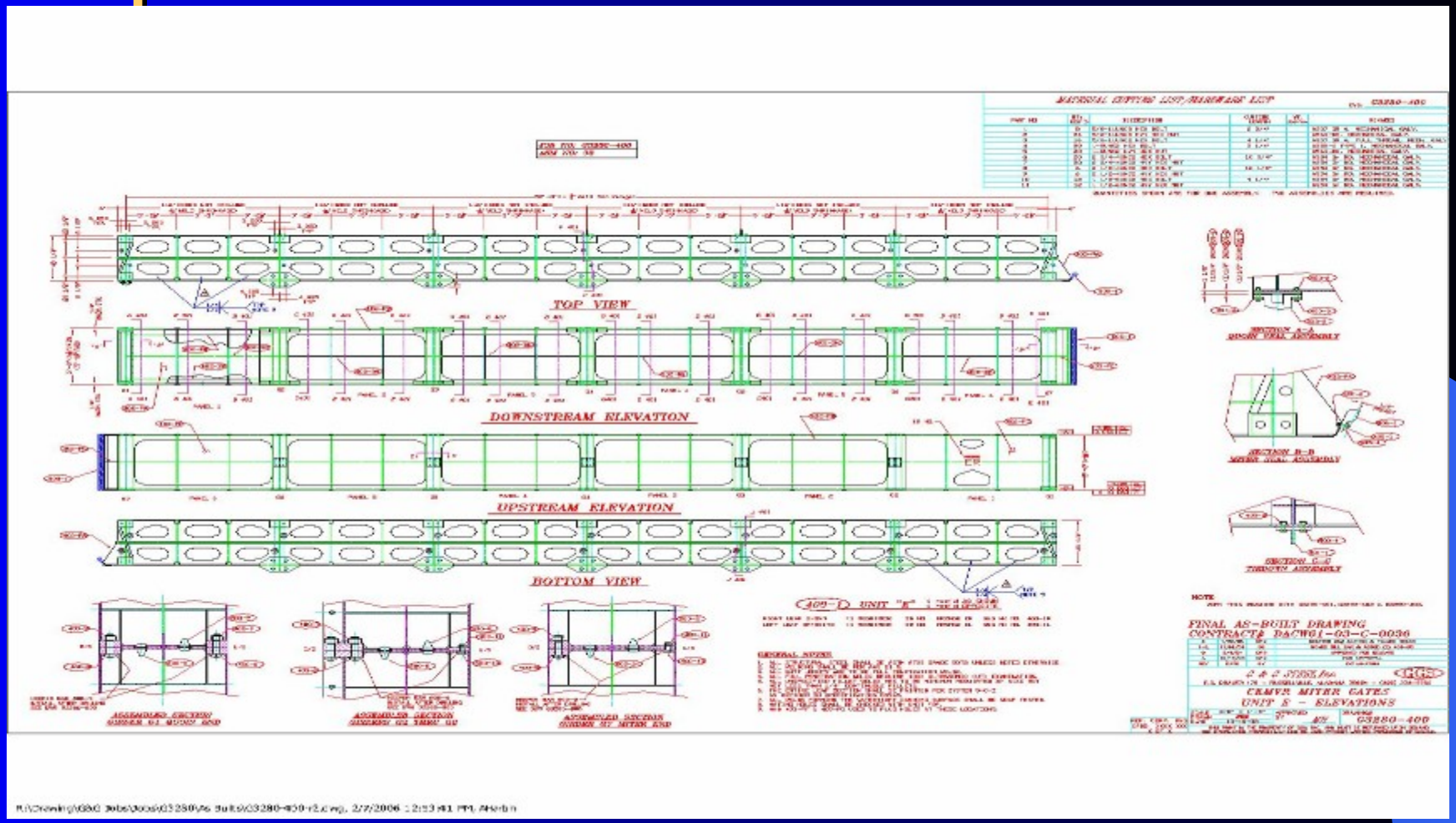
Spare Gate Section “C”



Spare Gate Section “D”



Spare Gate Section “E”



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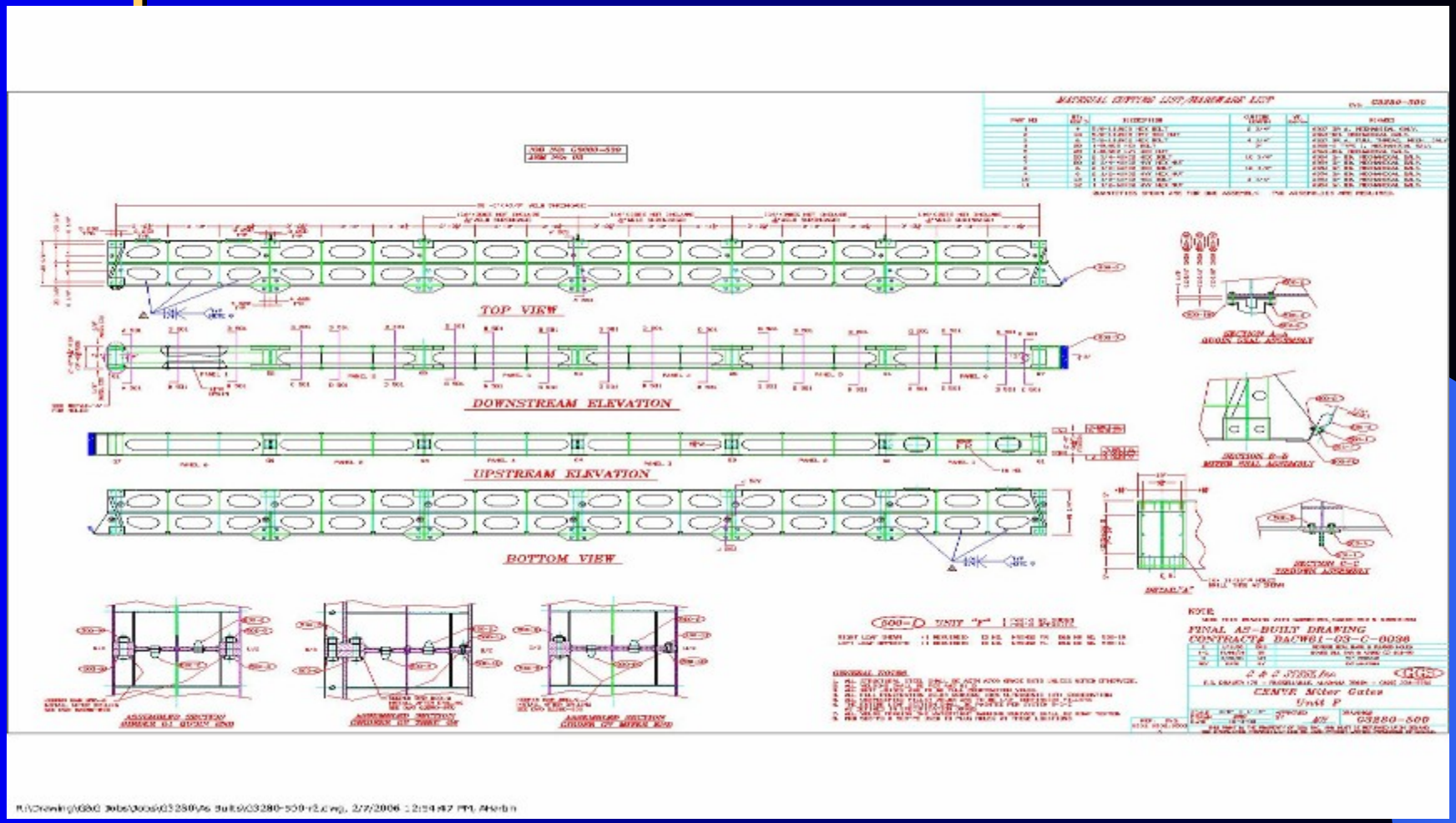
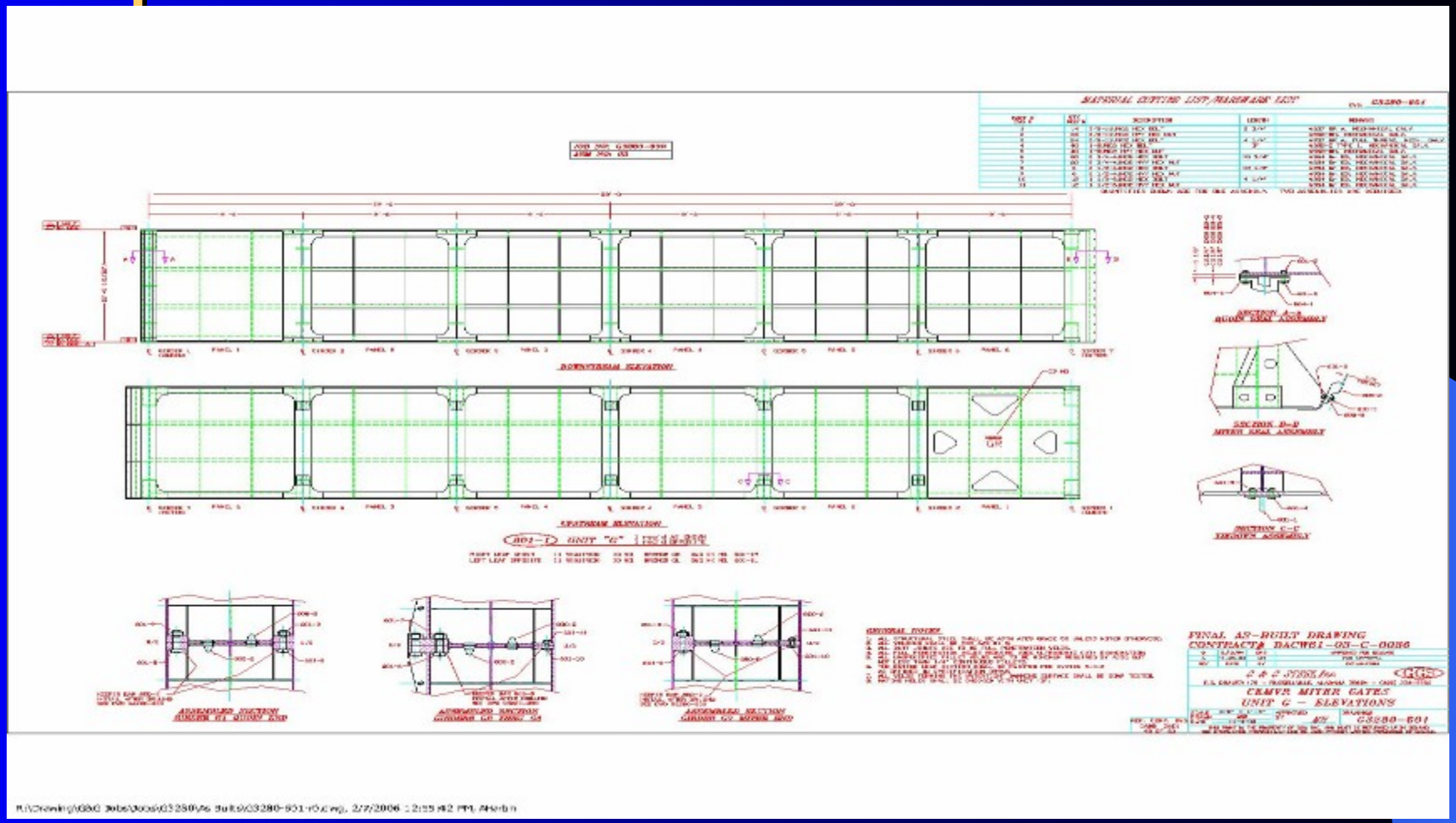
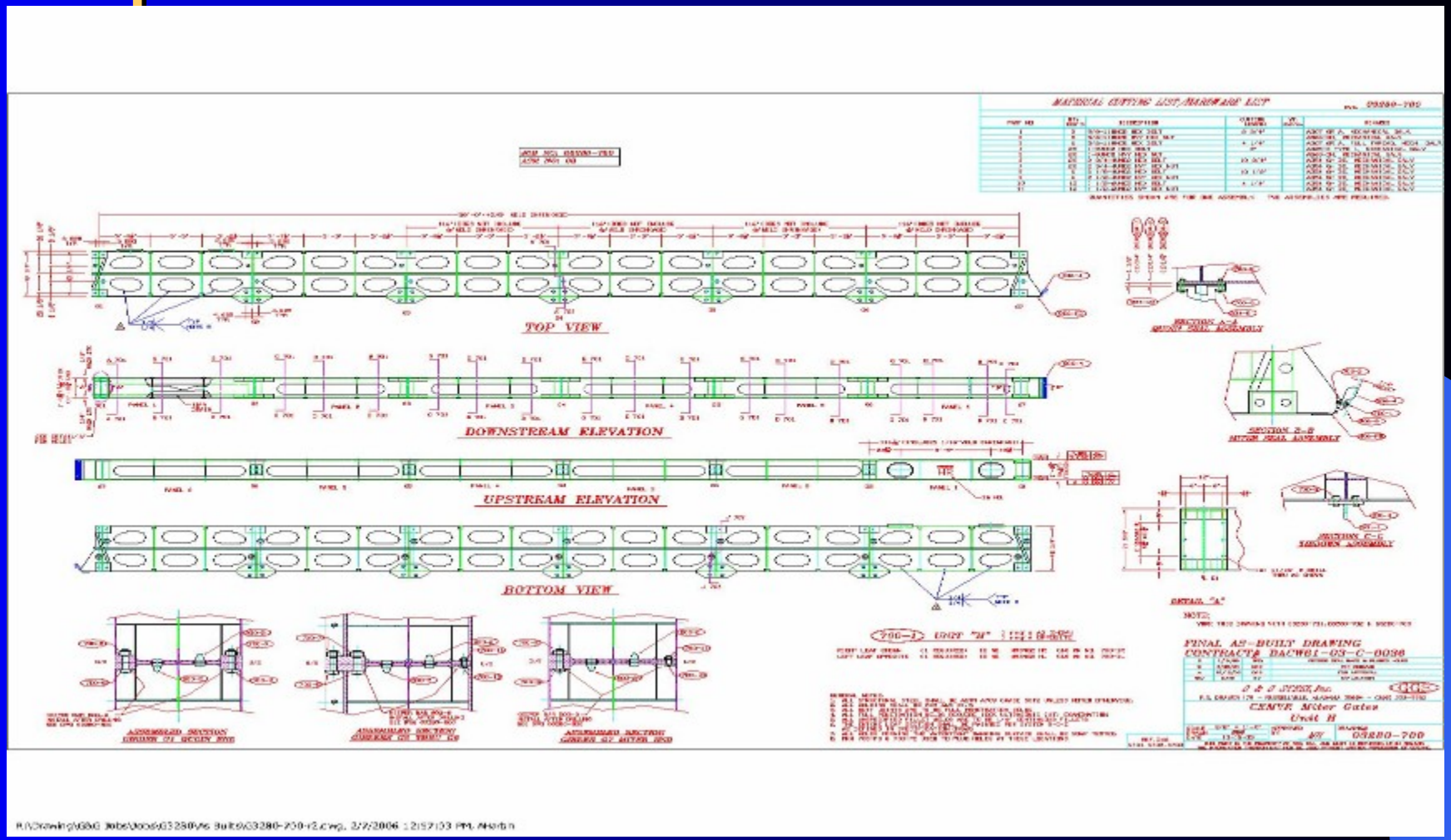


Spare Gate Section “G”



Spare Gate Section “H”



“Ouad Cities” Gate Lifter

TESTING THE QUAD CITIES
220 TON AT 60 FT. RADIUS

Quad Cities Picking Lock 19 Gate

Setting Spare Gate Lock 19

Removing Spare at Lock 19

Removing top half of Spare

MV BETTENDORF, QUAD CITIES, SPARE GATE BARGE, & CARGO BARGES

MV BETTENDORF & TOW

MV BETTENDORF & TOW

MV ROCK ISLAND PUSHING PART OF STRUCTURE MAINTENANCE PLANT

MV ROCK ISLAND & TOW

MV ROCK ISLAND & TOW

Maintenance Support

- Our maintenance crews are available and looking for work the Winter of 2006-2007
- We can provide crane support up to 350 tons with the Quad Cities.
- We can provide mechanical dredging, debris removal or rock placement with two modern crane barges accompanied with reliable push boats.
- We have extensive experience with gate repairs or any related heavy steel field fabrication and construction

Old River Lock 85’ Miter Gate & Quad Cities

ASSISTED GATE CHANGE INDUSTRIAL CANAL LOCK - New Orleans District

Mechanical Dredging

Contact Information

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